

[Earthquake Protector]

Abstract

A manufacture called "earthquake protector" to shield a building structure against destructive earthquakes as well as to secure its stability under strong winds, comprising two ring-shaped segmented slide tracks containing plurality of freely revolving rollers made of hard material, said rollers in each track stretched parallel to one another, said tracks positioned above each other with their axes of rotational sliding being set horizontal and mutually orthogonal, said tracks comprising three properly configured race pads, namely: a lower pad resting on the building footing, an intermediate pad, and an upper pad supporting the building superstructure; top surface of the lower pad and bottom surface of the intermediate pad encompassing a lower track; top surface of the intermediate pad and bottom surface of the top pad encompassing an upper track; said pads being able to slide mutually along their tracks; a column stub underpinning and framed into the building superstructure, said column stab having its lower end unrestrained against rotation and supported on the top surface of upper pad with the help of a self-lubricating spherical foot bear-

ing. With a magnitude of earth movement exceeding a certain threshold, the earthquake protector permits horizontal excursions of the footing relative to the superstructure while transmitting a considerably reduced shearing force and bending moment upwards thus preventing any sizable lateral deformations in the protected building.